# BEFORE THE BOARD OF ENVIRONMENTAL REVIEW AND THE DEPARTMENT OF ENVIRONMENTAL QUALITY OF THE STATE OF MONTANA

In the matter of the amendment)
of ARM 17.36.345, 17.38.101,
17.38.106, 17.38.208, and
17.38.229 pertaining to
adoption by reference, plans
for public water supply or
wastewater system, fees,
treatment requirements, and
disinfection

NOTICE OF PUBLIC HEARING ON PROPOSED AMENDMENT

(PUBLIC WATER AND SEWAGE SYSTEM REQUIREMENTS AND SUBDIVISIONS)

### TO: All Concerned Persons

- 1. On November 18, 2005, at 9:30 a.m., the Board of Environmental Review and the Department of Environmental Quality will hold a public hearing in Room 111, Metcalf Building, 1520 East Sixth Avenue, Helena, Montana, to consider the proposed amendment of the above-stated rules.
- 2. The Board and Department will make reasonable accommodations for persons with disabilities who wish to participate in this public hearing or need an alternative accessible format of this notice. If you require an accommodation, contact the Board no later than 5:00 p.m., November 7, 2005, to advise us of the nature of the accommodation that you need. Please contact the Board Secretary at P.O. Box 200901, Helena, Montana 59620-0901; phone (406) 444-2544; fax (406) 444-4386; or email ber@mt.gov.
- 3. The rules proposed to be amended provide as follows, stricken matter interlined, new matter underlined:
- 17.36.345 ADOPTION BY REFERENCE (1) For purposes of this chapter, the department hereby adopts and incorporates by reference the following documents. All references to these documents in this chapter refer to the edition set out below:
- (a) Department Circular DEQ-1, "Standards for Water Works", 1999 2006 edition;
  - (b) remains the same.
- (c) Department Circular DEQ-3, "Standards for Small Water Systems", 1999 2006 edition;
  - (d) through (h) remain the same.
- (i) Department Circular PWS-5, "Ground Water Under the Direct Influence of Surface Water", 1999 2002 edition;
  - (j) through (2) remain the same.

AUTH: 76-4-104, MCA IMP: 76-4-104, MCA

<u>REASON:</u> The Board is proposing amendments to Administrative Rules of Montana (ARM) Title 17, Chapter 38,

subchapters 1 and 2 and the Department is proposing amendments to Title 17, Chapter 36 to update the existing rules regarding public water supplies to make them consistent with the statutes, by revising Department Circular DEQ-1, by modifying existing rules for clarification purposes, by adopting new rules, by adopting new fees or modifying existing fees to address the proposed changes, and by adopting checklists for "extensions", which are currently used as a policy. These proposed amendments are necessary to allow the Department to meet the legislative intent, streamline the Department processes, and to clarify the rules for the benefit of the regulated public.

### PROPOSED UPDATES TO DEPARTMENT CIRCULAR DEQ-1 "STANDARDS FOR WATER WORKS"

Revisions to Circular DEQ-1, Standards for Water Works, are being proposed for adoption. DEQ-1 is based on the Ten States Standards, 1982 edition. The Ten States Standards were updated in 2003. The proposed changes are needed to keep DEQ-1 current with the revised Ten States Standards.

The Forward section includes language that allows generally accepted industry standards for review of new technologies to treat water until a new policy is adopted.

The proposed revisions to major sections of DEQ-1 are summarized below. Copies of DEQ-1 may be obtained by contacting Jenny Chambers, Public Water Supply and Subdivisions Bureau, Department of Environmental Quality, P.O. Box 200901, Helena, Montana 59620-0901; by phone at (406) 444-2691; or at www.deq.mt.gov/wqinfo/Circulars.asp.

<u>Chapter 1: Submission of Plans</u> A change is proposed to require the applicant to submit three copies of design plans and specifications signed and stamped by the engineer at submittal instead of two. This is necessary because some County Health Departments are asking that the Department provide them with a copy of approved signed and stamped plans. Proposed revisions in Chapter 1 also include requiring fire flow demand based on local fire department recommendations and requiring completion of the Appendix A checklist for significant improvements with economic impacts. Fire flow demand is typically based on local fire department limitations and recommendations, rather than the Significant requirements of the State Fire Marshal. improvements may require reevaluation of technical, managerial and operational capacity. Proposed changes also include requiring that proposed deviations be submitted on a Departmentapproved form and be stamped by the design engineer. It is often difficult to determine the exact deviation requested by an engineer. This will also ensure consistency with Subdivision Section deviation processes.

<u>Chapter 2: General Design Considerations</u> The major change proposed is that all equipment must operate within manufacturer's recommendations. This change will ensure that all equipment is operated within manufacturers' recommended

ranges.

Chapter 3: Source Development A new requirement is proposed that gravity or pumped storage must meet maximum day demand with the largest producing well out of service. Typically, this can be done by either doubling pump capacity or drilling a third well. This change was adopted by the Ten States Standards to ensure adequate source capacity if a well goes out of service. A requirement is proposed that hydropneumatic storage must meet peak instantaneous demand with the largest producing well out of service. A reduction from peak instantaneous demand is proposed for systems with less than 50 living units if adequate pressures can be maintained.

Chapter 4: Treatment All equipment must be designed to operate within manufacturers' recommended parameters. A revision is proposed for disinfection requiring pretreatment if certain water quality parameters are exceeded. This change is necessary because poor water quality can greatly increase chlorine demand. Further proposed changes are the addition of an anion exchange section and moving the former waste section to Chapter 9. Proposed changes include consolidating some former Department policies into a general section covering all ion exchange processes.

Reverse Osmosis, Bag and Cartridge Filters, Membrane Filtration, and Ozone Policies were moved out of the policies section and into Chapter 4. New Ultra-violet (UV) and Point-of-Use/Point-of-Entry policies have been added. The reason for this change is that technologies for Reverse Osmosis, Bag and Cartridge Filters, Membrane Filtration and Ozone are now sufficiently confirmed and documented to allow the establishment of specific design parameters. Ultra-violet disinfection and Point-of-Use/Point-of-Entry policies are added as policies until all design parameters can be documented and confirmed.

<u>Chapter 5: Chemical Application</u> Proposed changes include new sections on sodium hypochlorite and ammonia. These changes are necessary to clarify chemical application for hypochlorite (as opposed to gas chlorination) and ammonia.

Chapter 6: Pumping Facilities A proposed change states that subsurface pits are not allowed and changes booster pump automatic shutoff from 10 to 20 psi. These changes are necessary to ensure safety of the water system operator and distribution system.

Chapter 7: Finished Water Storage A proposed change clarifies that AWWA Standards apply to all tank materials. This change clarifies Department policy. Storage tanks are often made of material other than steel. Revisions further require two manholes on all tanks. This change is necessary to ensure safety of the operator during cleaning or maintenance. There is a further addition of a section on cisterns that references Circular 17. This change is consistent with current department

policy and clarifies standards for construction of cisterns.

Chapter 8: Transmission Mains and Distribution System A section is proposed to be added regarding external corrosion. This section was moved from Policy on Internal Corrosion, as adopted by Ten States Standards. A revised section is proposed to allow water mains to be installed closer than ten feet to a gravity sewer if laid in a separate trench. This change is necessary for situations where horizontal separation cannot be achieved, but equivalent protection is still possible. A section is proposed to be added clarifying that temporary piping during construction is subject to MDEQ review. This change is necessary to ensure protection of the distribution system during construction.

In Appendix A, a new self-assessment checklist is proposed that is required for new systems or existing systems with significant improvements with economic impacts. This change is necessary because significant improvements may require reevaluation of technical, managerial and operational capacity.

Water and sewer checklists are proposed that require an independent professional engineer review (not the design engineer), except when the project is a replacement or an extension that has previously received Master Plan approval within the past ten years. Any deviations must be submitted on the Deviation Form. This is consistent with an informal Department policy held for the past decade that is necessary to decrease review time for projects that are already reviewed by an independent engineer.

## PROPOSED UPDATES TO DEPARTMENT CIRCULAR DEQ-3 "STANDARDS FOR SMALL WATER SYSTEMS"

Amendments are proposed to Department Circular DEQ-3, Standards for Small Water Systems, to incorporate the proposed changes to DEQ-1 and to provide consistency and clarity with existing statutory requirements in implementation and enforcement of existing rules. The proposed revisions to DEQ-3 are summarized below. Copies of the proposed revisions may be obtained by contacting Jenny Chambers, Public Water Supply and Subdivisions Bureau, Department of Environmental Quality, P.O. Box 200901, Helena, Montana 59620-0901; by phone at (406) 444-2691; or at www.deq.mt.gov/wqinfo/Circulars.asp.

Chapter 1: Submission of Plans A change is proposed to require the applicant to submit three copies of design plans and specifications at submittal instead of two. This is necessary because some County Health Departments are asking that the Department provide them with a copy of approved signed and stamped plans. Proposed revisions in Chapter 1 requiring fire flow demand based on local fire department recommendations and requiring completion of the Appendix A checklist for significant improvements with economic impacts for non-transient non-community systems. Fire flow demand is typically based on local fire department limitations and recommendations, rather than the

requirements of the State Fire Marshal. Significant improvements may require reevaluation of technical, managerial and operational capacity. Proposed changes also include requiring that proposed deviations be submitted on a Department-approved form. It is often difficult to determine the exact deviation requested. This will also ensure consistency with Subdivision Section deviation processes.

Chapter 2: General Design Considerations The major change proposed is that all equipment must operate within manufacturers' recommendations. This change will ensure that all equipment is operated within manufacturers' recommended ranges. Provisions are also proposed to ensure that materials are disinfected in accordance with AWWA Standards, where applicable, and that consideration be given to other federal, state or local requirements. The purpose of this change is to ensure consistency of the systems under DEQ-3.

<u>Chapters 3-8:</u> Changes to DEQ-3 are proposed to ensure consistency with DEQ-1 requirements.

<u>Chapter 9: Deviations</u> Procedures for deviations are proposed to be removed from Chapter 9 and placed in Chapter 1 to ensure consistency with the language of DEQ-1.

The proposed amendments to ARM 17.36.345 are necessary to adopt the correct edition of the documents that are being adopted by reference within this section. Failure to adopt the correct version of the documents in this section may place a system in violation with the requirements identified in ARM Title 17, chapter 38, subchapter 1.

# 17.38.101 PLANS FOR PUBLIC WATER SUPPLY OR WASTEWATER SYSTEM (1) through (3)(j)(ii) remain the same.

- A person may not commence or continue the construction, alteration, extension, or operation of a public water supply system or wastewater system, until the applicant has submitted a design report along with the necessary plans and specifications for the system to the department or a delegated division of local government for its review and has received written approval. Two Three sets of plans and specifications are needed for final approval. Approval by the department or a delegated division of local government is contingent upon construction and operation of the public water supply or wastewater system consistent with the approved design report, plans, and specifications. Failure to construct or operate the system according to the approved plans and specifications or the department's conditions of approval is an alteration for purposes of this rule.
- (a) The design report, plans and specifications for community water systems must be prepared and designed by a professional engineer in accordance with the format and criteria set forth in Circular DEQ-1, "Montana Department of Environmental Quality Standards for Water Works", 1999 edition.

- (b) The design report, plans and specifications for non-community water systems must be prepared in accordance with the format and criteria set forth in Circular DEQ-3, Department of Environmental Quality Standards for Small Water Systems", 1999 edition. The department or a delegated division of local government may require the plans and specifications for such a system to be prepared by a professional engineer when the complexity of the proposed system warrants such engineering using storage<del>,</del> (e.g., systems gravity or booster/reduction stations, or disinfection facilities). department or a delegated division of local government will require the plans and specifications for such a system to be prepared by a professional engineer when treatment processes and equipment, subject to review under DEQ-1, "Montana Department of Environmental Quality Standards for Water Works", is proposed. The department or a delegated division of local government may allow standard plans and specifications previously approved by the department to be used for such a system in place of those prepared by a professional engineer on a case-by-case basis.
- (c) The design report, plans and specifications for all wastewater systems, except public subsurface sewage treatment systems, must be prepared and designed by a professional engineer in accordance with the format and criteria set forth in department Circular DEQ-2, "Montana Department of Environmental Quality Design Standards for Wastewater Facilities", 1999 edition. The design report, plans and specifications for a wastewater system must also be designed to protect public health and ensure compliance with the Montana Water Quality Act, Title 75, chapter 5, MCA, and rules adopted under the Act, including ARM Title 17, chapter 30, subchapter 7.
- (d) The board adopts and incorporates by reference ARM 17.36.320 through 17.36.325, 17.36.327 and 17.36.345. The design report, plans, and specifications for public subsurface sewage treatment systems must be prepared in accordance with ARM 17.36.320 through 17.36.325, 17.36.327 and 17.36.345 and in accordance with the format and criteria set forth in department Circular DEQ-4, "Montana Standards for Subsurface Wastewater Treatment Systems", 2004 edition.
- (e) The design report, plans, and specifications for water extensions or replacements which meet the criteria in "Water Main Certified Checklist" may be submitted under that abbreviated process.
- (f) The design report, plans, and specifications for sewer extensions or replacements which meet the criteria in "Sewer Main Certified Checklist" may be submitted under that abbreviated process.
- $\frac{(e)\cdot(g)}{(g)}$  The department may grant a deviation from the standards referenced in  $\frac{(4)}{(a)}$  through  $\frac{(e)\cdot(f)}{(e)}$  when the applicant has demonstrated to the satisfaction of the department that strict adherence to the standards of this rule is not necessary to protect public health and the quality of state waters. Deviations from the standards may only be granted by the department.
  - (f) remains the same, but is renumbered (h).

- (5) To resume review of plans and specifications for a project that has been inactive for more than a year after issuance of a denial letter by the reviewing authority, the applicant must resubmit plans and specifications and fees as required in ARM 17.38.106.
- (6) Plans and specifications for a project that would violate the approval of a public water supply will not be approved by the reviewing authority.
- (5) through (13) remain the same, but are renumbered (7) through (15).
- (14) (16) The board adopts and incorporates by reference the following For purposes of this chapter, the department adopts and incorporates by reference the following documents. All references to these documents in this chapter refer to the edition set out below:
- (a) Department of Environmental Quality Circular DEQ-1, 1999 2006 edition, which sets forth the requirements for the design and preparation of plans and specifications for public water supply systems;
  - (b) remains the same.
- (c) Department of Environmental Quality Circular DEQ-3, 1999 2006 edition, which sets forth minimum design standards for small water systems;
- (d) Department of Environmental Quality Circular DEQ-4, 2004 edition, which sets forth standards for subsurface wastewater treatment systems; and
- (e) Department of Environmental Quality Water Main Certified Checklist, 2006 edition, which sets forth minimum criteria and design standards for water main extensions and replacements;
- (f) Department of Environmental Quality Sewer Main Certified Checklist, 2006 edition, which sets forth minimum criteria and design standards for sewer main extensions and replacements; and
  - (e) remains the same, but is renumbered (g).
- (15) (17) A copy of any of the documents adopted under (14) (16) may be obtained from the Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901.

AUTH: 75-6-103, MCA

IMP: 75-6-103, 75-6-112, 75-6-121, MCA

REASON: The proposed amendment to (4) is necessary to require an applicant to supply three certified copies of submitted plans and specifications for final approval. The current requirement of two meets department needs, but we have been asked by local counties to supply them with a copy of the final plans and specifications for their records.

The proposed amendment to (4)(a) is necessary to remove the "edition" information for the document identified. As existing ARM 17.38.101(14) adopts by reference the specific edition of each document adopted by reference, the Department proposes to remove the "edition" information from all other references within the rules so as to simplify the process for updating

those documents. Future modifications to the adopted documents will only require modification of ARM 17.38.101(14).

The proposed amendments to (4)(b) are necessary to remove the edition information from the referenced document and to clarify when a professional engineer will be required to submit plans and specifications for projects submitted under DEQ-3. In addition, the proposed change would allow standard plans and specifications previously approved by the department to be used for such a system in place of those submitted by a professional engineer, thus reducing the costs associated with such submissions to the applicant.

The proposed amendments to (4)(c) and (d) are necessary to remove the edition information from the referenced documents.

The proposed additions of new (4)(e) and (f) are necessary to adopt "checklist" plan and specification submission criteria for water and sewer main extensions and replacements. These checklist adoptions allow existing systems that have been previously reviewed and approved to follow a much shortened and less expensive path in getting plans and specifications for extensions reviewed. The checklist process is currently conducted as Department policy.

The proposed adoption of new (5) limits the amount of time that submitted plans and specifications might be left in an inactive status. This is necessary to correct the situation in which a denied submission remains within the department with no action by the applicant only to be reactivated at a later date when the review fees and standards may have changed. This amendment will also ensure consistency with subdivision section processes.

The proposed adoption of new (6) is necessary to allow the department to deny an application solely on the grounds that approval of that application would place an existing system in violation.

The proposed amendment to (14) is necessary to clarify the specific edition of the identified documents as being the official document and that any reference to those documents within the chapter is to the edition listed within this section.

The proposed amendments to (14)(a) and (c) are necessary to update the "edition" information for the documents identified.

The proposed adoptions of new (14)(e) and (f) are necessary to allow applicants to use the checklist process for main extensions. The checklist process is faster and less expensive than the standard review process. The checklist process is currently used as a Department policy.

The changes to the earlier editions of DEQ-1 and DEQ-3 are described above in the Reason for the amendments to ARM 17.36.345.

### <u>17.38.106 FEES</u> (1) remains the same.

<sup>(2)</sup> Fees for review of plans and specifications are based on (2)(a) through (e) and (3). The total fee for the review of a set of plans and specifications is the sum of the fees for the applicable parts or sub-parts listed in these citations. Approval will not be given Department review will not be

 $\underline{\text{initiated}}$  until fees calculated under this rule have been received by the department.

(a) The fee schedule for designs requiring review for compliance with department Circular DEQ-1, 1999 edition, is set forth in Schedule I, as follows:

### SCHEDULE I

Policies	
Ultra Violet Disinfection	\$ 400
Point-of-Use/Point-of-Entry Treatment	200
Section 3.1 Surface water	<u> 200</u>
quality and quantity	200
structures	•
Section 3.2 Ground water	5 600
Section 4.1 Clarification	٥٥٥ م
standard clarification	5 500
	•
solid contact units	\$ 1,000
Section 4.2 Filtration	4 1 0 5 0
rapid rate	
pressure filtration	
diatomaceous earth	•
slow sand	
direct filtration	950
biologically active filtration	
membrane filtration	5 600
micro and ultra filtration	\$ 600
bag and cartridge filtration	300
Section 4.3 Disinfection	
Section 4.4 <del>Cation exchange s</del> Softening	\$ 500
Section 4.5 Aeration	
natural draft	\$ 200
forced draft	
spray/pressure	
packed tower	500
Section 4.6 Iron and manganese	
control sequestering	\$ 200
Section 4.7 Fluoridation	300
Section 4.8 Stabilization	
	300
Section 4.9 Taste and odor control	
powdered activated carbon	\$ 400
Section 4.10 Microscreening	\$ 200
Section 4.11 Waste disposal Ion Exchange	500
alum sludge	<del>\$ 250</del>
lime softening sludge	250
red water waste	250
Section 4.12 Adsorptive Media	
Chapter 5 Chemical application	700
Chapter 6 Pumping facilities	
Section 7.1 Plant storage	
Section 7.2 Hydropneumatic tanks	
Section 7.3 Distribution storage	
Section 7.4 Cisterns	

Chapter 8 Distribution system

< 1320 lineal feet with standard specs\$	150
< 1320 lineal feet without standard specs\$	450
> 1320 lineal feet with standard specs\$	300
> 1320 lineal feet without standard specs\$	600
Main extension certified checklist\$	100
Chapter 9 Waste Disposal\$	250
Appendix A	
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 new systems......
 \$ 200

 modifications.....
 \$ 100

(b) The fee schedule for designs requiring review for compliance with department Circular DEQ-2, 1999 edition, is set forth in Schedule II, as follows:

Schedule II remains the same.

- (c) The fee schedule for designs requiring review for compliance with department Circular DEQ-4, 2004 edition, is as specified in the fee schedule in ARM 17.36.802 for wastewater disposal systems.
- (d) The fee schedule for designs requiring review for compliance with department Circular DEQ-3, 1999 edition, is to be determined under Schedule III, as follows:

Schedule III remains the same.

(e) The fee schedule for the review of plans and specifications not covered by a specific department design standard, but within one of the following categories, is set forth in Schedule IV as follows:

### SCHEDULE IV

Hypochlorinators\$	<del>200</del>
Ozonators up to 10 gpm\$	<del>300</del>
CT evaluations\$	
Reverse osmosis up to 10 gpm\$	<del>300</del>
Spring box and collection lateral\$	250
Cartridge/bag filters\$	<del>300</del>

(3) through (7) remain the same.

AUTH: 75-6-108, MCA IMP: 75-6-108, MCA

REASON: The proposed amendment to (2) is necessary to clarify when the review fees are required. It is the intent of the legislature that the Department collect fees that are commensurate with the costs of those reviews. This clarification will ensure that the Department collects fees for all review work done as opposed to only those applications that receive an approval statement. There will be no fiscal impact from this change.

The proposed amendments and additions to (2)(a) are necessary to remove the edition information from the referenced documents so as to simplify future modifications of those documents, and to adjust the fee table in accordance with the proposed changes to DEQ-1 and DEQ-3. The changes include

relocation of existing fees and line items, addition of new fees for new line items, and clarification of existing line items. It is the intent of the legislature that the Department collect fees that are commensurate with the costs of those reviews. The fee for ultra violet disinfection was moved from general disinfection (400) to a separate line item for no net change in fees assessed.

A fee of \$200 for point-of-use/point-of-entry was added. The program receives approximately two point-of-use/point-of-entry proposals per year for a total fee increase of \$400 per year.

Fees of \$950 for direct filtration and biologically active filtrations were added. These fees are consistent with the fees charged for other filtration methods (\$950) for no net change in fees assessed.

A fee of \$500 for micro and ultra filtration was added. This fee is less than the general filtration fee of \$950. The program receives approximately one micro and ultra filtration proposal per year for a total fee decrease of \$350 per year.

A fee of \$200 for spray/pressure filtration was added. This fee is consistent with the fees charged for other aeration methods (\$200) for no net change in fees assessed.

A fee of \$600 was added for tower aeration. This is an increase of \$400 over the general aeration fee. The program receives approximately one packed tower aeration proposal every two years for a total fee increase of \$100 per year.

A fee of \$300 was added for fluoridation. The program receives approximately one fluoridation proposal every two years for a total fee increase of \$150 per year.

A fee of \$200 was added for microscreening. The program receives approximately one microscreening proposal every two years for a total fee increase of \$100 per year.

A fee of \$500 was added for ion exchange. This would previously have been billed under chemical addition (\$700). The program receives approximately 10 ion exchange proposals per year for a total fee decrease of \$2,000 per year.

A fee of \$500 for adsorptive media was added. The program receives approximately one adsorptive media proposal per year for a total fee increase of \$500 per year.

A fee of \$200 was added for cisterns. This would previously have been billed under distribution storage (\$500). The program receives approximately five cistern proposals per year for a total fee decrease of \$1,500 per year.

Fees for waste disposal were combined and moved for no net change in fees assessed.

A fee of \$200 - new, modification of \$100 - was added for Appendix A reviews. The program receives approximately ten new Appendix A proposals and five modifications for a total fee increase of \$2,500 per year.

The proposed amendments to (2)(b), (c), and (d) are necessary to remove the edition information from the referenced documents. There will be no fiscal impact from this change.

The proposed amendments to (2)(e) relocate these fee line items to proposed new locations elsewhere in the rule.

The fee for hypochlorinators of \$200 with mandatory CT evaluation of \$200 was combined under general disinfection (\$400) for no net change in fees assessed.

The fee for ozonators of \$300 was moved to general disinfection (\$400) for an increase of \$100 per review. The program receives approximately one ozone proposal per year for a total fee increase of \$100 per year.

The fee for reverse osmosis of \$300 was moved to membrane filtration (\$600) for an increase of \$300 per review. The program receives approximately three reverse osmosis proposals per year for a total fee increase of \$900 per year.

The fee for cartridge/bag filters was moved to Section 4.2 with no change in fees assessed.

- $\underline{17.38.208}$  TREATMENT REQUIREMENTS (1) through (3) remain the same.
- (4) The board adopts and incorporates by reference the following:
  - (a) through (e) remain the same.
- (f) 40 CFR 141.66(g) <u>and 40 CFR 141.66(h)</u>, which sets forth BATs <u>and small system compliance technologies (SSCT)</u> for radionuclides, respectively;
  - (g) through (w) remain the same.

AUTH: 75-6-103, MCA IMP: 75-6-103, MCA

<u>REASON:</u> The proposed new addition to ARM 17.38.208 is necessary to adopt the small system compliance technologies list for radiological contaminants as allowed under the federal Safe Drinking Water Act. Failure to adopt this list of compliance technologies for small systems would limit small systems to only consider treatment options that may only be cost effective for large systems.

- 17.38.229 DISINFECTION (1) Full time disinfection with chlorine is mandatory where the source of water is from lakes, reservoirs, or streams, or ground water sources under the direct influence of surface water, or where the water may be exposed to a potential source of contamination including, but not limited to:
  - (a) losses of positive pressure within the system;
- (b) unprotected or poorly protected ground water sources; or
- (c) substandard distribution, pumping or storage facilities.
- (2) Full time disinfection of the water supply is mandatory whenever the water may be exposed to a potential source of contamination including, but not limited to: through treatment processes, as determined by the department.
  - (a) losses of positive pressure within the system;
  - (b) unprotected or poorly protected ground water sources;
- (c) the introduction of chemicals or gases for treatment; or

- (d) substandard distribution, pumping or storage facilities.
- (3) Full time disinfection of the water in a ground water supply system is mandatory whenever the record of bacteriological tests of the system does not indicate  $\frac{1}{2}$  safe water under the criteria listed in ARM 17.38.207 and 17.38.215. Full time disinfection with chlorine may be required where the history and nature of the contaminant indicate a residual is required to ensure safe water.
- (4) Methods of full time disinfection must be reviewed and approved by the department prior to the installation or use of any form of treatment.
- (5) The residual disinfectant concentration measured as free chlorine, total chlorine, combined chlorine, chlorine dioxide, or other department approved disinfectant(s), in the distribution system of a ground water supply system required by the department to use continuous disinfection with chlorine must not be less than 0.2mg/l using the DPD method or 0.1mg/l using the amperometric titration method. A heterotrophic bacteria concentration in water in the distribution system less than or equal to 500 per milliliter, measured as heterotrophic plate count (HPC), is an acceptable substitute for disinfectant residual for purposes of determining compliance with this rule.

AUTH: 75-6-103, MCA IMP: 75-6-103, MCA

REASON: The proposed amendments to ARM 17.38.229 are necessary to clarify when disinfection with chlorine may be required as opposed to some other form of disinfection. The proposed amendments clarify that chlorine disinfection is required when the Department determines that a residual disinfectant is required within the system.

- 4. Concerned persons may submit their data, views or arguments, either orally or in writing, at the hearing. Written data, views or arguments may also be submitted to the Board Secretary at Board of Environmental Review, 1520 E. Sixth Avenue, P.O. Box 200901, Helena, Montana, 59620-0901; faxed to (406) 444-4386; or emailed to ber@mt.gov, no later than 5:00 p.m., November 25, 2005. To be guaranteed consideration, mailed comments must be postmarked on or before that date.
- 5. Katherine Orr, attorney for the Board, or another attorney for the Agency Legal Services Bureau, has been designated to preside over and conduct the hearing.
- 6. The Board and Department maintain a list of interested persons who wish to receive notices of rulemaking actions proposed by this agency. Persons who wish to have their name added to the list shall make a written request that includes the name and mailing address of the person to receive notices and specifies that the person wishes to receive notices regarding: air quality; hazardous waste/waste oil; asbestos control;

water/wastewater treatment plant operator certification; solid waste; junk vehicles; infectious waste; public water supplies; public sewage systems regulation; hard rock (metal) mine reclamation; major facility siting; opencut mine reclamation; strip mine reclamation; subdivisions; renewable energy grants/loans; wastewater treatment or safe drinking water revolving grants and loans; water quality; CECRA; underground/above ground storage tanks; MEPA; or general procedural rules other than MEPA. Such written request may be mailed or delivered to the Board Secretary at Board of Environmental Review, 1520 E. Sixth Ave., P.O. Box 200901, Helena, Montana 59620-0901; faxed to (406) 444-4386; emailed to ber@mt.gov; or may be made by completing a request form at any rules hearing held by the Board or Department.

7. The bill sponsor notice requirements of 2-4-302, MCA, do not apply.

Reviewed by:

BOARD OF ENVIRONMENTAL REVIEW

<u>James M. Madden</u> BY:

JAMES M. MADDEN
Rule Reviewer

BY: Joseph W. Russell

JOSEPH W. RUSSELL, M.P.H.,

Chairman

BY: Richard H. Opper

RICHARD H. OPPER, Director

Certified to the Secretary of State October 17, 2005.